REMARKS

Claims 23-47 are pending in this application. Claims 23, 35 and 43-47 are independent claims. Claim 47 has been amended by this Amendment.

The Office Action dated May 7, 2007 rejected claim 47 under 35 USC 101 as being directed to non-statutory subject matter. The Office Action also rejected claims 23-42 as being anticipated by U.S. Patent No. 6367045 to Khan, or rendered obvious by the Khan patent in view of other patents, and rejected claims 43-47 as being anticipated by prior art under 35 USC 102(b).

Non-statutory subject matter

The grounds for the rejection of claim 47 under 35 USC 101 as being directed to non-statutory subject matter is set forth in part 5 on page 4 of the Office Action. Specifically, the rejection states that "[n]either signals nor computer programs fall into any of the statutory categories of invention."

Applicants have amended claim 47 to overcome the rejection. Specifically, applicants have amended claim 47 to require that the computer program be recorded on a tangible medium. See In Re Beauregard , 53 F.3d 1583, 1584 (Fed. Cir. 1995) (noting the PTO's statement that "computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. 101..."). It is therefore respectfully submitted that claim 47, as amended, is directed to statutory subject under 35 USC 101.

Claims 23-42 - Khan et al patent

The grounds for the anticipation rejection under 35 USC 102(e) and the obviousness rejections under 35 USC 103(a) of claims 23-42 based on the Khan et al patent are set forth in parts 6 and 8-11 on pages 4-5 and 5-6 of the Office Action. Applicants previously traversed the rejection on the basis that the invention was prior to the filing date of the Khan et al patent, providing a copy of a draft of the UK priority application dated prior to the filing date of the Khan et al patent. The Office Action declines to withdraw the rejection. Instead, it requires a Declaration under 37 CFR 1.131 and also alleges that the draft application is insufficient to show reduction to practice.

This application is a national stage application of PCT Application No. IB00/00962 filed on July 3, 2000, which in turn claimed the priority of United Kingdom Patent Application No. 9915593.9 filed on July 2, 1999. A certified copy of the UK priority document was filed in the PCT application and has been received in this application. The Khan et al patent was filed on July 1, 1999, only one day before applicants' claimed priority date.

Applicants have obtained and submit simultaneously herewith the requested Declaration under 37 CFR 1.131. The Declaration and attached documents show that the Khan et al patent was not filed before the invention of the subject matter of the rejected claims by applicants. Therefore, the anticipation rejection under 35 USC 102(e) and obviousness rejections under 35 USC 103(a) should be withdrawn for this reason.

Furthermore, applicants respectfully submit that the Declaration and attached document are sufficient to show reduction of practice of the invention since the draft of the priority application is overwhelmingly similar to the present application, and there is no allegation that the present application contains an insufficient description of the invention. Thus there is either an actual or constructive reduction to practice of the invention.

Finally, in any event, the Declaration and attached documents show that there was a conception of the invention as of June 29, 1999, which is prior to the filing date of the Khan et al patent. There is also due diligence, as the email correspondence shows, and in fact, the UK priority application was filed on July 2, 1999 only three days later than the date of the documents attached to the Rule 131 Declaration. This showing of conception plus due diligence to filing of the UK priority application presents yet a third basis for withdrawal of the rejections.

It therefore respectfully requested that the anticipation and obviousness rejections based in whole or in part on the Khan et al patent be withdrawn in view of the evidence showing that the Khan et al patent was filed after the invention by applicants.

Anticipation Rejection - Claims 43-47

The present invention relates to datagram acknowledgment schemes for indicating to a transmitter which datagrams previously transmitted to a receiver by the transmitter were incorrectly received by the receiver. The present application discusses a prior art bitmap acknowledgment system (see page 2, paragraph 1) in which each acknowledgement message includes a set of bits, each of which corresponds to a single datagram. The state of a bit (e.g. 1) indicates that the corresponding datagram has been correctly received. The other status of a bit (e.g. 0) indicates that the corresponding datagram has been incorrectly received.

As explained in the present application, the efficiency of such a prior art bitmap acknowledgment scheme depends on the proportion of datagrams received incorrectly. If few datagrams are received incorrectly, the bitmap system is relatively inefficient since it uses a bit of data for even the correctly received datagrams (see page 2, paragraph 2 of the present application).

The acknowledgement scheme recited in the rejected claims differs from such prior art bitmap acknowledgement schemes by generating a plurality of data units for the acknowledgment messages. Each of the data units comprises a status bit and a plurality of spacing bits. The status bit indicates the status of the data unit. The spacing bits form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram. Exemplary, non-limiting, support for the claimed acknowledgement scheme can be found on page 11 of the originally filed specification. The table at the top of page 11 shows 4-bit data units. The first three bits of each data unit form the spacing bits, while the last bit of each data unit forms the status bit. The formation of data units as recited in the claims is advantageous because it uses bandwidth more efficiently over a range of different error situations than the prior art acknowledgment schemes.

The grounds for the anticipation rejection of claims 43-47 is set forth in part 7 on page 5 of the Office Action. Specifically, the claims are rejected as being anticipated by the preferred embodiment illustrated in Fig. 3 and discussed at col. 4, lines 7-36, of U.S. Patent No. 5,444,718 issued to Ejzak et al (this preferred embodiment hereinafter referred to simply as "Ejzak"). Applicants respectfully

traverse the rejection on the grounds that it fails to establish that Ejzak includes each and every one of the combination of features recited in the rejected claims.

For example, each one of claims 43 to 47 recites the features of generating a plurality of data units, each data unit comprising a status bit indicative of the status of the data unit and a plurality of spacing bits that together form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a succeeding incorrectly received datagram.

Ejzak appears to relate to a bitmap acknowledgment scheme similar to the prior art scheme described on page 2 of this application. This can be seen by considering the section of the Ejzak patent referred to by the rejection:

> "Periodically, receiver 200 sends to transmitter 100 via buffer modulator 220 a status control message indicating, inter alia, which packets were received correctly and not correctly (or not at all). (Hereinafter, reference to packets that were received not correctly will also include packets that were not received at all.) An illustrative example of a status control message is shown in FIG. 3. In particular, the error check field contains a conventional error check code that permits transmitter 100 to determine whether or not the status control message contains errors that may be due to channel noise and fading. The NR field contains a sequence number one larger than that of the last data packet that the receiver passed to its respective upper control layer. The NL field contains the largest sequence number packet that the receiver received correctly. Bit map field "bmf" is formed from bit map 216 (FIG. 1) and is the means by which receiver 200 "tells" transmitter 100 which data packets were received correctly or incorrectly. The bit positions of field "bmf" correspond with data packet sequence numbers relative to the sequence number contained in the NR field of the associated status message, in the manner discussed above. Similarly, the value of a bit in the bmf field indicates whether the corresponding data packet was received correctly (e.g., a binary one) or incorrectly (e.g., a binary zero), as mentioned above. For example, if the value in field NR happened to be 8, then bit NR+1 corresponds with data packet 9, bit NR+2 with data packet 10, bit NR+3 with data packet 11, and so on." (col. 4, lines 7-36)(underlining added)

As explained above in the present application, the efficiency of a bitmap acknowledgment scheme such as Ejzak depends on the proportion of datagrams received incorrectly. If few datagrams are received incorrectly, the bitmap system is relatively inefficient since it uses a bit of data for even the correctly received datagrams (see page 2, paragraph 2 of the present application).

Each of the claims 43 to 47 includes the features of generating a plurality of data units, each data unit comprising a status bit indicative of the status of the data unit and a plurality of spacing bits that together form a binary representation of a number indicative of the spacing between one incorrectly received datagram and a

succeeding incorrectly received datagram. The bitmap in Ejzak does not include a plurality of data units that each includes a status bit and a plurality of spacing bits. Indeed, the rejection has not identified where a plurality of data units are present in Ejzak, nor where Ejzak includes status bits indicative of the status of a data unit. Therefore, claims 43 to 47 are not anticipated by Ejzak.

Applicants hereby petition for a one month extension of time of the response period for the Office Action. The Commissioner is hereby authorized to charge the extension fee, and any other fees which may be necessary for the consideration of this Amendment, to Deposit Account No. 10-0100 (NOKIA.4010US).

Respectfully Submitted,

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